

APPLICATION
FOR
UNITED STATES LETTERS PATENT

10052007-00100000

TITLE: SUSPENDED CONTAINERS

APPLICANT: JEFFREY T. MANNION, CHRISTEN A. BEAR, JOHN N. WILLIAMS AND SUE A. WILLIAMS

CERTIFICATE OF MAILING BY EXPRESS MAIL

Express Mail Label No. E129842801245

I hereby certify under 37 CFR §1.10 that this correspondence is being deposited with the United States Postal Service as Express Mail Post Office to Addressee with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, Washington, D.C. 20231.

January 16, 2002

Date of Deposit



Signature


Anne Roy

Typed or Printed Name of Person Signing Certificate

SUSPENDED CONTAINERS

W priority

This invention relates to disposable packaging, to take out consumable products, to improved techniques for displaying and transporting products, and to novel ornamental designs for consumer packaging.

5

INTRODUCTION TO THE INVENTION

The invention provides to stores, restaurants and take-out counters, and their customers, a new form of packaging and display which features a disposable container suspended from a discrete suspending element associated with the rim and removable top of a disposable wide-mouth container. In many of its preferred forms the suspending element is so associated with the container that the container, when suspended hangs by gravity at an angle to the vertical axis of the container. In many preferred embodiments the container has flexible walls and a thickened rim, for instance a conventional disposable, paper coffee cup having at its rim a rolled bead. Also, in many preferred forms, the lid of the container has a clear central section enabling view of the contents, or view of an inner tamper-evident sealing top. Particular embodiments of the invention have many other important features and uses.

The container filled with merchandise may readily be suspended for take-out in singles or multiples from a display rack, while after purchase they may be suspended from a finger engaged with the suspending element of the package to leave the hand free for additional activities, such as, for example, carrying a cup of hot coffee, a cold drink, a bag of popcorn, a plate of food, a briefcase, or a bag of groceries or holding on to the hand of a child or parent.

The container may be inexpensively constructed in accordance with this invention while providing for a variety of ornamental and distinctive appearances and trade dresses, according to the vendor's or customer's wishes, e.g., by surfaces that may carry high quality decoration and printing. The walls of the container can advantageously be printed to serve as holiday decoration or as a gift presentation. In addition, the shape of the container, the aspect ratio and the configuration and color of the lid may be varied to achieve desired ornamental characteristics, all while remaining within the scope of the present invention.

The replaceable lid may be removed from the container for partial consumption of the contents while remaining intact, to be reclosed on the container. Thus the container can be used to store (in suspended or unsuspected manner) remaining contents or other things. In the home environment, such suspended packages may occupy ordinarily unused space, as where the normal items on a shelf do not reach the height of the next shelf, e.g. in waste space of a dish or staples cabinet or a refrigerator. Suitable merchandise with which the novel packaging is useful includes pre-packaged dried soups, spices, grains, legumes or fruits, cookies, crackers, cereal coffee in bean or ground form, nuts, snacks, candy, yogurt, ice cream, butter, frozen juice concentrate, cheese dips and condiments.

Certain embodiments include prepackaged merchandise, such as delicate products ranging from wrapped chocolate truffles to sets of small electric light bulbs, or any one of the prepackaged goods mentioned above, or, preferably with insulation features, the suspendable container may contain hot or cold contents, such as hot soup, hot coffee, cold drinks or ready-to-eat foods for the takeout lunch customer, or ice cream or yogurt in single servings for the movies or ball games, or in larger quantities.

In many cases the invention provides novel prepackaged products having tamper-evident features and vision access to the goods within, while in other cases it provides containers that may be filled on-site by retail establishments or their customers.

Containers and products according to the invention can be efficiently displayed on single and multi-tier counter racks, tree displays or on a line of overhead hooks that, in effect, can add another display row to space-starved retail stores, counters or kiosks.

According to one aspect of the invention, a combination package is provided including a disposable package for consumable contents and a suspending element, the disposable package including a container of greater than 5 cm (2 inches) minimum horizontal dimension which is closed at least in part by a removable lid, the container having a surrounding wall of upstanding, generally flexible material extending from a container bottom to a wide mouth at the top of the container, the mouth being about as wide as the horizontal cross-section of the container, the wide mouth defined by a relatively thick rim formation, and the lid having a rim portion extending over and removably engaged with the rim formation to form at least part of an attachment of the lid to the container, the lid of the container and its attachment being constructed to support the container and its contents, and

the flexible suspending element extending from the lid and arranged to be engaged by a thin support element such as a support rod or hook of a product display rack or the finger of a hand, the suspending element being sized and arranged, with a length less than about 13 cm (5 inches) such that when engaged by the support element, the suspending element suspends 5 the wide mouth container by its lid in position immediately below the support, for display or transport.

Preferred embodiments of this aspect of the invention have one or more of the following features:

The suspending element comprises an element defining a single opening such as a hole or loop, through which the support element can be inserted for engagement.

The suspending element is a flexible strand comprising, for instance, a cord, string, ribbon, thong, strap, filament or wire. Preferably the suspending element has two leg segments which join outwardly to form a loop, the two leg segments secured at their opposite ends to the lid at substantially a common point. In many cases, preferably, the common point is located generally in the rim region of the removable lid. In other cases, preferably, the common point is located generally in the mid region of the removable lid.

The suspending element in the form of a flexible strand extends through an aperture in the lid to a formation that is larger than the aperture, the formation creating interference with structure of the underside of the lid to prevent passage of the formation through the aperture and thereby cause transfer of the load on the lid, including the load of the container, to the suspending element. In certain cases, preferably, the formation is formed by an end portion or portions of the strand, in many of the cases, preferably, the formation is a knot formed by the end portion or portions.

The lid includes a plastic rim and the suspending element comprises an extension of the rim. In certain cases, preferably, the extension is a free integral continuation of the rim of the lid, joined at both of its ends to respectively spaced apart rim portions of the lid, the free continuation of the rim and the rim portions from which it extends cooperating to define a continuous surface. In some cases, preferably, the suspending element is joined integrally to the rim portion of the lid, and lies, or is adapted to be moved to, a position above the lid; in many of these cases, the portion defining the suspending element extends outwardly, as a flexible or deflectable integral projection from the rim portion of the lid to a free end which

defines an opening such as a hole or loop through which the support element may be inserted. In other cases, the portion defining the suspending element extends inwardly from the rim portion of the lid; for example, the portion defining the suspending element extends inwardly, as a flexible or deflectable integral projection from the rim portion of the lid, to a free end which defines an opening such as hole or loop through which the support element may be inserted, or the portion defining the suspending element is an integral projection in the form of an arch extending from one region at which it is joined to the rim portion of the lid to another region, spaced from the first-mentioned region, at which it is also joined to the rim portion of the lid, there being open space below the arch which defines an opening through which the support element may be inserted, and sometimes into which the arch may be deflected, e.g., for collapsing for shipping in a packaging case. In the latter example, in certain cases, preferably, the portion forming the arch is flexible or resilient, enabling it to have its position changed, from a position near or below the level of the upper extent of the lid, to a position sufficiently above that level to enable unimpeded insertion of the support element, for example, the portion forming the arch is constructed to resiliently snap from a concave configuration, in which it lies below the level, to a convex configuration in which it extends above the level.

A lower end of the suspending element includes one of a pair of interfitting connection features, and a region of the lid is configured to form the other of the pair, the connecting features being so oriented on the respective suspending element and lid that suspension force applied to the suspension element by the support element urges the interconnecting features to engage in load-transmitting relationship to transfer the load of the container, via the lid, to the suspending element and thence to the support element; for example, the connecting features are respectively of male and female construction, in which case, preferably, the male connecting feature is secured to the lower end of the suspending element and the female feature comprises a molded formation in the top surface of the lid. In one advantageous form, the male connecting feature on the suspending element comprises a flat wedge and the female connecting feature comprises upward formations of the lid that define a wedge-receiving cavity.

The suspending element has an end formation interfitting with a connecting formation formed in the material of the rim portion of the lid.

5 The suspending element is a flexible loop attached to an integral upstanding formation of the lid, preferably, the loop being threaded through an opening in the upstanding formation of the lid, for example, the loop is defined by a strand having a retaining knot sized larger than the opening in the formation through which the loop is threaded, or the loop is a continuous plastic loop.

10 According to another aspect of the invention, a combination is provided including a disposable package for consumable contents and a suspending element, the package comprising a container of greater than 5 cm (2 inches) minimum horizontal dimension which is closed at least in part by a removable lid, the container having a surrounding wall of upstanding, generally flexible material extending from a container bottom to a wide mouth at the top of the container, the mouth being about as wide as the horizontal cross-section of the container, the wide mouth defined by a relatively thick rim formation, and the lid having a rim portion extending over and removably engaged with the rim formation to form at least part of an attachment of the lid to the container, the rim formation of the container and the rim portion of the lid defining a rim region of the package, and the single suspending element extending from the rim region of the package or its vicinity, located to suspend the package at a tilted orientation, such that the lid of the suspended container extends at a greater angle to the horizontal than it does when the container rests upon its bottom.

15 Preferred embodiments of this aspect of the invention have one or more of the following features.

20 The suspending element extends from the rim portion of the lid, or the suspending element extends from or is engaged with the rim formation of the container.

25 The suspending element comprises an element defining an opening such as hole or loop, through which the support element can be inserted for engagement; in many cases, preferably, the suspending element is a flexible strand comprising, for instance, a cord, string, ribbon, thong, strap, filament or wire.

30 The suspending element has two leg segments which join outwardly to form a loop, the two leg segments secured at their opposite ends to the rim region of the package at substantially a common point.

35 The rim formation of the container is defined by a rolled bead or folded upper extension of the wall of the flexible wall of the container, and the suspending element

comprises an elongated flexible strand such as a cord, string, ribbon, thong, strap, filament or wire formed into a free loop terminating in two extended end portions which are captured in and secured between portions of the rolled bead or folded extension of the wall of the container.

5 A flexible element surrounds the exterior of the container immediately below and in load-transferring relationship with the rim formation of the container, the suspending element being attached to the flexible element; in certain cases, preferably, the flexible element comprises a so-called "zip tie" comprising an elongated strap of plastic having gripping formations on at least one of its sides, the strap inserted into a detent which engages a gripping formation and prevents reverse movement of the band; ; in certain cases, an insulating sleeve is secured about the container by the elongated strap.

10 The suspending element is preferably secured to the strap just described in the vicinity of the detent by a pivot or flexible joint.

15 A support sleeve is provided which is movable relative to the exterior surface of the container, upwardly to a point of load-transmitting engagement with the container, and the suspending element has at least a portion connected to the sleeve. In one such case, this sleeve is combined with a support ring surrounding the container, engaged with a portion of the rim formation of the container, and the suspending element comprises two leg segments joined to form a loop for receiving the supporting element, opposite end portions of the leg segments joined in load-transferring manner respectively to the support ring and the support sleeve. In one advantageous example, the support ring, the support sleeve and the suspending element comprise a single plastic molding.

20 The suspending element comprises part of a supporting sleeve engaged upon the exterior of the container. In certain cases preferably, the sleeve is a thermal insulating sleeve for the container, the sleeve being comprised of resilient thermoplastic foam, or corrugated paper or a mesh.

25 The sleeve has opposed upwardly extending flexible arms, one of the arms extending through a slit in the other, one of the arms lying across the top of the lid, and the other of the arms defining the suspending element.

30 In another advantageous form, the sleeve is associated at its upper portion with a draw string constructed and arranged to simultaneously draw the sleeve close about the top of

the package, provide for load transfer from the package, and define a suspending element for suspending the package from the support element.

5 The sleeve is defined by a mesh fabric, a portion of the fabric extending above the lid, and holes in the upwardly extending portion of the fabric providing for entry of the support element.

10 The sleeve has upwardly extending retaining formations arranged to engage the rim portion of the lid and hold it in place on the container. In certain embodiments of this feature, a flexible suspending element is engaged with the sleeve or a formation carried by the sleeve. In other embodiments, a formation carried by said sleeve defines the suspending element.

15 It is advantageous in many instances of all the foregoing embodiments to employ, as the flexible material of which the container is formed, paper stock, in many cases drinking cup paper stock, for instance, coffee cup paper stock.

20 Advantageously, in such instances, the rim formation of the container comprises a rolled bead of the paper stock, or a folded rim, e.g., in the case of use of traditional ice cream containers that employ a friction fit lid telescoped over the container top.

25 In many cases, the lid is a plastic lid that is snap-fit about a rim formation.

30 In many cases, it can also be advantageous that the flexible material of which the wall of the container is formed comprises plastic foam, with the rim formation of the container having a thickness of foam greater than lower portions of the walls of the container.

In many cases, the attachment of the lid to the container includes an outer heat shrunk tamper-evident exterior seal. Preferably, the seal surrounds mating rim portions of the body of the container and its lid.

Preferred embodiments of various aspects of the invention include an exterior surface 25 of the container body which carries printed text or decoration.

Preferred embodiments of various aspects of the invention feature a lid which has a clear section in its center through which the goods or a seal may be viewed. In certain embodiments of this aspect, the lid comprises a colored or opaque outer rim and a central region of clear plastic. In other embodiments, the lid has a rim region and a central region 30 integrally formed of clear plastic and a second colored or opaque rim member is attached to the clear plastic rim of the lid to render the resulting composite rim region colored or opaque.

In certain implementations of this arrangement, the second rim member advantageously has a depending skirt that is heat-shrunk about the rim region of the cup to form an exterior seal.

5 In other embodiments, there is a clear plastic film member and an annular rim member, the clear plastic film member extending across the central portion of the lid to define a viewing window, and having a skirt that depends past and is heat-sealed in the region of an upper rim formation of the cup.

In various embodiments, a price tag or greeting card is joined to the suspending element.

10 Various embodiments of the invention are advantageously combined with a display rack on which the package is suspended by its suspending element.

Preferred embodiments of this aspect have one or more of the following features.

The display rack defines a horizontal support rod on which multiple units of the package are displayed.

15 There are at least two tiers of support rods or hooks, one above the other, the length of the suspending elements of the packages being predetermined such that packages hanging from the top level of the rods or hooks do not interfere with the placement or removal of the packages on the next-below rod or set of hooks

20 A single rod is bent in a V-shape, and is mounted centrally on a support rising from a base, such that the rod provides two-rod sections, which diverge from each other. Advantageously, a multiple tier display assembly is provided in which each level is defined by such a V-shape rod.

Other aspects of the invention are the various ornamental design for the package and the display that are elaborated by respective sets of drawings.

25 This invention, including the many detailed advantageous features that will be described, has many uses, and despite its deceiving simplicity, has not previously been known.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a front view of an embodiment of the invention.

Figs. 2, 3 and 4 are respectively views from the right, back, and left of the embodiment of Fig. 1.

Figs. 5 and 6 are top and bottom views of the embodiment of Fig. 1.

Fig. 7 is a perspective view of the embodiment of Fig. 1.

5 Fig. 8 is a partially broken-away perspective view of the cup shown in Fig. 1.

Fig. 9 is a partial cross-sectional view illustrating details of the connection of the cord, lid and seal.

Fig. 10 illustrates an alternative use of a reinforcing washer in cooperation with the knot for securing the loop of the lid.

10 Fig. 11 is a broken-away perspective view of a pre-packaged product, illustrated by the container of the previous figures filled with twist-wrapped chocolate truffles, and having tamper-evident internal closure and external seal.

15 Figs. 12, 12A and 2B are sequential views showing the assembly of the product illustrated in Fig. 11. Fig. 12C illustrates an optional step of applying an external seal member, while Fig. 12D illustrates a customer opening the product produced according to Fig. 12C.

20 Fig. 13 is a side cross-sectional view of a composite lid providing clear-window and exterior-seal preform features; Fig. 13A is a side cross-sectional view illustrating its application to a disposable cup; and Fig. 13B illustrates the breaking of the exterior seal and opening of the container.

25 Figs. 14 and 14A are views similar, respectively, to Figs. 13 and 13A of another embodiment of a composite lid having a clear window and exterior-seal feature, while Fig. 14B is a view similar to Fig. 14A of another embodiment. Fig. 14C is a broken-away perspective view of an embodiment incorporating principles of the invention employing a polystyrene cup, while Fig. 14D is a similar view in relation to a paper cup having corrugated exterior insulation, the materials shown in cross-section in Fig. 14E.

30 Fig. 15 is a vertical cross-section of a cup to which is being applied a lid having a folded and tucked securing feature, while Fig. 15A is a similar feature of the lid fully secured, and Fig. 15B is a cut-away perspective view of the cup in which the suspending element is held by a finger.

16E missing!

Figs. 16-16D are front, right, back, left, top and bottom views, respectively, similar to the series of Figs. 1 to 6, of another embodiment of a container and product according to the invention, which varies in ornamental appearance while achieving the advantages of the present invention.

5

Figs. 17-17E are front, right, back, left, top and bottom views, respectively, similar to the series of Figs. 1 to 6, of another embodiment of a container and product according to the invention, which varies in ornamental appearance while achieving the advantages of the present invention.

10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

Fig. 18 is a perspective view of a container and its lid in which a free extension of the rim of the lid defines a suspending element. Fig. 18A is a perspective view of the package hanging from a display Peg-board rod, and Fig. 18B is a perspective view of the package after the suspending element/rim has been peeled from the package to enable the lid to be removed.

Fig. 19 illustrates a lid having an integral suspending element formed by a free-ended integral outward projection from the rim of a snap-on lid.

Fig. 20 illustrates a lid having an integral suspending element formed by a free-ended integral inward projection from the rim of a snap-on lid.

Fig. 21 is an exploded view of a rotatable bayonet-type rotary locking lid, and a container whose rim is specially constructed to receive the lid, while Fig. 21A illustrates a package assembled from the components of Fig. 21 shown suspended by its suspending element.

Fig. 22 illustrates a cylindrical paper carton and a friction fit lid in the top of which is molded a suspending element while Fig. 22A illustrates a series of such containers hanging by their suspending elements

Fig. 23 is a dismantled view of a container similar to that shown in Fig. 22, except that the container in Fig. 23 is of square cross-section, Fig. 23A shows the assembled package while Fig. 23B shows a series of the packages hanging from their respective suspending elements.

Fig. 24 illustrates a snap-on lid having an arch-form suspending element integrally formed in the mid region of the lid while Fig. 24A illustrates a number of packages, formed with such lids, suspended on a display rod.

Fig. 25 illustrates a lid defining a female connector and a suspending element having a male connector being mated with the lid; Fig. 25A illustrates the suspending element and lid fully mated, with the package hanging from a finger while Fig. 25B shows a series of the packages of Fig. 25A hanging from a display rod.

Fig. 26 illustrates a snap-on lid having an integrally formed upward projection to which a suspending loop is attached, while Fig. 26A illustrates a package formed with such lid being supported by a finger in the loop (the retaining knot of the loop on the opposite side of the projection being hidden from view).

Fig. 27 shows a series of suspended packages having lids according to Fig. 26, but in which a continuous filament loop of the type used for hang tags is employed to suspend the package, the loops carrying hang tags too.

Fig. 28 illustrates a paper container having a rolled bead that defines the container's wide mouth rim, in which extensions of a suspending loop cord are captured in the bead; Fig. 28A illustrates in cross-section the captured cord and Fig. 28B shows such a container, sealed by an adhered pull-off lid, hanging by the loop from a finger.

Fig. 29 illustrates a similar container combined with a friction fit lid while Fig. 29A illustrates a package so-formed hanging from a finger.

Fig. 30 illustrates a zip tie sized to surround a container and engage its rim formation and having connected to it a deflectable suspending element, while Fig. 30A illustrates the device of Fig. 30 attached to a cap that carries a snap lid.

Fig. 31 shows the tie of Fig. 30 combined with an insulating sleeve secured to the cup by the tie.

Fig. 32 illustrates a one-piece slip-on device having a support ring and sleeve that are dimensioned, respectively, to engage the rim formation of the cap and at a lower position, the upwardly enlarging wall of the cup, the device including a suspending element connecting the ring and sleeve, and, when assembled on the cup, providing a suspending loop.

Fig. 33 shows a foam insulation sleeve surrounding a cup, and having upward projection which cooperate to secure the lid and provide a suspending element.

Fig. 34 illustrates an insulating sleeve or carrying sling construction with a draw string supported by a finger.

Fig. 35 illustrates a mesh sleeve supporting a cup and defining a suspending element.

Fig. 36 illustrates a slip-on locking and supporting device constructed to secure a lid to a disposable cup while Figs. 37 and 38 illustrate alternative examples of suspending elements associated with the device of Fig. 36.

Fig. 39 illustrates a similar ornamental sleeve combined with a lid having a centrally located suspending loop; Figs. 39A-F are views taken respectively from the front, right side, back, left side, top and bottom of the sleeve of Fig. 39.

Fig. 40 illustrates an ornamental design in which a feature of a character defines a suspending element.

Fig. 41 is a perspective view of an ornamental design of a two-tier display rack while Figs. 41A-41F are views taken respectively from the front, right side, back, left side, top and bottom of the display of Fig. 41.

Fig. 42 illustrates the display rack of Fig. 41 combined with a package according to the invention.

Fig. 43 is a perspective view of an ornamental design of a single tier display rack while Figs. 43A-43F are views taken respectively from the front, right side, back, left side, top and bottom of the display of Fig. 41.

Fig. 44 illustrates the display rack of Fig. 43 combined with a package according to the invention.

DESCRIPTION OF PREFERRED EMBODIMENTS

Referring to Figs. 1-9, this embodiment employs a conventional 8-ounce disposable paper beverage cup 2 having a rolled upper bead 8 defining an upper rim for a wide-mouth opening and a snap-lid 4 based in part upon the design of a conventional disposable thermoformed snap lid. The cup tapers, having a minimum diameter of about 4.5 cm (1.75 inches) at its bottom and a maximum diameter of about 6.5 cm (2.5 inches) at its top, the top opening or mouth of the cup corresponding to the latter dimension. The lid is of suitable plastic resin, e.g. of 0.5 mm thickness and the cup and lid are cooperatively constructed to be snap-fit together, a rim portion of the lid lying over and engaging bead 8.

The lid shown corresponds to lids designed for hot beverages by including a drinking hole 6 formed in a raised annular ridge 10 in the outer part of the lid. It is formed of opaque, colored plastic in accordance with the trade dress desired. However, unlike conventional snap lids for beverage cups, the lid has a central opening terminating at edge 11 and of diameter for instance of 4.25 cm. Inserted into the rim of the lid and bonded in place to the undersurface of annular ridge 10 is a circular disk 7 of clear plastic resin, of diameter slightly smaller than the diameter of wall 10' that defines the outer edge of ridge 10, e.g. of 6 cm diameter. This provides a see-through window in the snap-lid. The drinking hole 6 and a matching hole in the adhered transparent disk are formed simultaneously by a punch, as a final step in forming the lid.

As shown in Figs.8 and 9, the paper wall-3 of the cup terminates in the relatively rigid upper bead 8 which defines the circular top rim of the cup, while the raised ridge 10 of the lid lies about 1 cm above the plane of the rim of the cup, when the two are snapped together. The cup wall 3 is originally manufactured as flat paper stock and is printed with high accuracy in its flat form, to provide decoration, trade dress and, where appropriate, notice of ingredients or contents as required by legal authorities. It is then cut, formed and glued in the usual way for beverage cups, into the truncated conical shape shown. In the usual way, the bottom of the cup is formed of a separate bottom member 5, to which an in-turned margin of the lower part of the side wall 3 is bonded. As is common with beverage cup lids, a series of spaced-apart inward indentations, not shown, are provided in the lower rim of thermoformed lid 4, located to snap over rim bead 8 of the cup and resiliently engage the lower portion of rim bead 8 to secure the lid to the cup.

According to this embodiment of the invention, a cord loop 14, extending above the lid, has its end portions threaded through hole 6 in ridge 10, terminating in ends 14', on the inside of the lid. These ends are secured in a retaining knot 16, which is substantially larger than the hole 6. Interference of the knot with the corresponding under-surface portion of the lid prevents pull-through when force is applied to the outer loop. The knot resides in the space provided by the raised ridge 10, above the plane of the rim 8 of the cup. In a specific preferred embodiment, the cord is 9 inches long overall (less than 12.7cm (5 inches) in height when formed into the loop 14), and comprises a multi-strand braided nylon cord of 6 mm diameter. By selection of different colors for the various strands of the cord, decorative

effects can be achieved in harmony with the design and trade dress printed on the wall of the cup.

In this embodiment the double thickness of material bounding hole 6, provided by the combination of the top wall of the annular ridge 10 and the thickness of insert 7, provides reinforcement against pull-through of retaining knot 16 under heavy stress. In the alternative embodiment shown in Fig. 10, of a plain conventional beverage cup lid 4' which has no insert 7, an annular reinforcing element, in the form of a conventional metal or plastic reinforcing washer 23 is threaded on the cord ends above the retaining knot. Upon tensioning the outer cord 14, washer 23 seats upon the inner top surface of ridge 10, providing reinforcement to prevent pull-through of the knot under significant loading.

In other embodiments, other retaining formations may obviously be substituted for the retaining knot, including, in appropriate cases for heavy loading of the cup, a large washer concentric with the rim of the lid, or an elongated horizontal crossrod to either of which end portions of the cord are bonded.

A preferred product is the container of Figs. 1-9 pre-filled with delicate twist-wrapped chocolate mini-truffles 18 (delicate chocolate shells with flavored soft gnoche centers), which are individually wrapped with metallized polyester wrapping film. As shown in Fig. 11, the free ends of the twisted truffle wrap, while flexible, have a degree of stiffness that provides cushioned engagement of the truffles with each other and the inside walls of the container. Preferably, as shown in Figs. 12A and 12B, an inner layer 19 of clear plastic is adhered across the rim of the cup, providing an air seal and a tamper-evident feature. The knot 16 does not interfere with layer 19, because it is situated in the region of ridge 10, above the plane of the cup rim 8.

In certain preferred embodiments, an outer seal member 21, as shown in Figs. 8, 9, 10 and 11, is applied across the juncture of the lid and cup at the rim, serving both the function of adding additional security of the lid to the rim and providing a tamper-evident feature. As shown in these figures, the seal member 21 is a discrete annular preform of heat-shrinkable resin such as polyethylene or acetate, sized to encompass the joint region of the container. After the container is filled, heat is applied to the seal preform 21, causing it to shrink and its skirts to tightly engage both the rim of lid 4 and the wall of the cup 3 below its rim 8. As suggested by the dotted lines in Fig. 11, a tear feature 25 is incorporated in the seal member

preform 21 and visibly identified. The user, to gain access to the contents of the container, first breaks this seal and then lifts off the lid of the container. The tear feature may be any of many known kinds, including a vertical row of perforations, with or without a pull tab or pull string.

5 Referring to Figs. 12 through 12C, the sequence of manufacture of a prepackaged product according to the invention is illustrated in respect of the product of Fig. 11. Cup 2 is gravity-filled with the desired contents, in this case twist-wrapped chocolate mini-truffles (Fig. 12.) Then the filled container has adhesively applied to its outer rim a moisture barrier, tamper-evident film 19 of clear plastic from a sheet 17, which passes relatively over the cup. Where appropriate, the film may be formed with a downward indentation at the rim of the cup, or be yieldable in that region, to accommodate projection into that space of a circular ridge of the lid when the lid is snap-fit onto the cup.

10 Fig. 12B shows the pre-assembled lid 4 being applied to the filled and sealed cup with the clear window 7 and cord loop 14 of the lid in place. In many instances this completes the packaging of the product. However, for the product of Figs 8-11, the further step is taken of applying the seal preform 21, and exposing it to heat H as from a suitably shaped hot air appliance, to heat-shrink the film to the conformation shown in Fig. 12C. This reinforces the interconnection between the rim of the lid and cup, to assure the container and its contents can be suspended by the loop and cover during handling before sale, even if the 15 contents are heavy.

20 The outer seal 21 and the internal film seal 19 cooperate to provide a very strong and protective container. In certain embodiments, however, as where the contents of the container are of lightweight, the outer seal 21 may be omitted, while in other embodiments, as where the protection of the goods does not require it, the internal seal sheet 19 can be 25 omitted.

20 As depicted in Fig. 12D, the user gains access to the contents by rupturing the external seal 21, if present, and by grasping and pulling cord loop 14. The off-center relationship of the cord to the lid applies bending forces to the lid, as the user firmly grasps and holds the cup steady. This action commences progressive disengagement of the lid from the rim bead 8 of the cup; indeed, the lid may come off with the sound of a "pop." Then the user removes the inner sealing film 19, if present, gaining access to the contents.

In certain preferred embodiments, the tear feature 15 is located in alignment with the cord, and the two are cooperatively related, such that a firm tug on the cord loop, while the user holds the cup firmly, is effective, without more, to break outer seal 21 at its tear or break feature.

Referring to Fig. 13, a composite lid 4" comprises an annular lid 4a identical to the annular lid element of the embodiment of Figs. 1-8, to which is adhesively combined a large circular disk of clear heat-shrink film 30 formed to conform to the full interior contour of lid 4a. This film extends across the central open region of the lid element to define a clear window 32, and is sized and shaped to have an outer skirt 34, which depends freely beyond lid 4a as a shrink-seal preform to reach and engage tightly the wall of the cup when skirt 34 is heat-shrunk. Thus the composite lid itself provides for an outer reinforcing and tamper-evident seal. As shown in Fig. 13A, after the lid 4" is snap-fit onto a filled container, it is subjected to a suitable source of heat H in both the region of the central window portion 32 and the skirt 34. The completed product has a shrink-stretched clear central window 32' and an exterior tamper-evident and reinforcing seal 34', both being formed by portions of the same film layer.

For enabling opening the container by a simple pull on loop 14 as depicted in Fig. 13B, the film of the seal portion 34', along the circular line of its desired peripheral rupture, has design-limited rupture strength to enable it to rupture under expected opening force applied to the loop. Various means can be adopted to ensure the rupture with the expected pull force, depending, e.g. upon any supplemental seal strength that may be desired to supplement the design strength of the particular snap-fit connection between the lid and cup, the expected roughness of handling, the expected contents, etc. For instance, the shrink film can be selected to have a particular film strength, or the heating step to shrink the film may be so conducted as to concentrate heating to cause thinning (hence weakening) of the film in a strategic line around the container, just below the circular rim of the lid 4a, in another embodiment a circular line of perforations or other lines of weakness can be introduced into the preform heat-seal skirt 34, or in the heat seal 34' after it has been formed.

The embodiment of Figs. 14 and 14A likewise achieves visibility of the contents and outer seal by a composite lid unit, but by different means. Referring to Fig. 14, a complete snap-fit cup lid 4b is thermoformed of clear thermoplastic resin, with suitable wall strength

and conformation to provide at its rim the snap-fit strength required for the application. To the exterior of an annular portion of this lid is applied an annular heat-shrinkable preform 40 of identical conformation to that of the lid, which also has an outer skirt 42, which depends from the rim of lid 4b much as did skirt 34 of the previous embodiment, except that skirt 42 5 extends from the outside surface of the rim that supports it. As shown in Fig. 14A, upon the skirt being subjected to heat H, it forms the desired exterior seal, as in the manner of the embodiment of Figs. 13 and 13A. Similar provisions as in the embodiment of Fig. 13 can ensure that skirt 42 will rupture as desired upon appropriate pull on loop 14. The material of member 40 advantageously is of a desired color, and is preferably opaque, to serve as an element of the decoration, and provide contrast to the window region provided by the lid within the opening of the annular member 40.

Referring now to the embodiment of Fig. 14B, a lid 4c is formed as in Fig. 14, of clear plastic resin or, where a window is not desired, of opaque resin. A preform 50 of heat-shrinkable film or sheet has an upper annular rim 52, which conforms to and is bonded to the peripheral flange 56 of lid 4c, while a depending skirt of the heat-shrinkable element has the same conformation as the skirt in the embodiments of Figs. 13 and 14. After being subjected to heat, it forms the seal 58 depicted in Fig. 14B.

Fig. 14C depicts a conventional molded polystyrene foam cup 2', having an enlarged, vertically extending, integral upper rim band 2a. Lid 64 has snap-fit features of the kind common to lids for polystyrene cups, but, as in the embodiment of Figs. 1-9, lid 64 has a large central aperture defined by edge 11' of raised ridge 10' to provide, e.g., a window for viewing the contents of cup 2'. Also similar to the embodiment of Figs. 1-9, cup 2a has a moisture/protective barrier 19' positioned over the major opening or mouth of cup 2', and lid 64 is supplementally joined to cup 2a by a tamper evident seal 21', based on principles similar to those of seal 21 of Figs. 8-11.

Fig. 14D depicts a cup similar in all respects to the embodiment of Fig. 1, except that cup 2'' includes an insulation layer 66 positioned adjacent cup wall 3' and of corrugated construction as illustrated in the cross-sectional view of Fig. 14E. Corrugated insulation layer 66 can be adhesively or otherwise bonded wall 3' of cup 2'' or, alternatively, can be a 30 removable, slip-on sleeve.

The thermal insulation provided by the polystyrene foam of cup 2' or the insulation layer 66 of cup 2'' of Figs. 14C and 14D, respectively, make them especially advantageous for maintaining the temperature of cold or hot contents. The various alternative sealing arrangements described in previous features can be employed in modifications of the 5 embodiments of Figs. 14C and 14D as well.

Referring now to Fig. 15, an alternative lid 100 is shown having a locking feature 102 for engaging the bead 104 about the rim of a standard cup 108. Locking feature 102 includes an internal flange portion 110 and an external flange portion 112 for engaging respectively the inner and outer surfaces of cup 108 when the lid is secured to the cup. The external 10 flange portion includes three folding panels 113, 114 and 115 that extend below bead 104 when the lid is placed on the cup. Panels 113, 114 and 115 can be folded inwardly as indicated by arrows a1 and a2 so that panel 115 engages the outer surface of cup 108 and the fold 116 between panels 114 and 115 engages the undersurface of bead 104, as illustrated in Fig. 15A.

Preferably, lid 100 and its flange portions 110 and 112 are molded integrally of 15 thermoplastic resin so that panels 113, 114 and 115 are of fairly resilient construction having hinge lines of partially reduced thickness between them. The hinge lines allow for fold 116, formed panels 114 and 115, and the fold 117, formed between panels 113 and 114, to occur at predetermined locations but provide a resilient spring force that acts to lock the lid to the 20 cup.

The folding panel arrangement of external lid flange portion 102 provides a reliable mechanism for securing lid 100 to cup 108 to allow suspension of the cup and its contents (not shown) by a loop 14 secured to lid 100 in a manner similar to that of previously described embodiments and as illustrated in Fig. 15B.

Another form of disposable cup and lid combination is illustrated in Figs. 16-16E. 25 The cup and lid arrangement is similar to that of Figs. 1-7 with a distinction being a relatively flat-profile lid 130. Again, in similar fashion to the arrangement of Figs. 1-7, the lid is equipped with a loop member for suspension of the attached cup 13. As illustrated in Fig. 16D, lid 130 is equipped with transparent central portion 132 for viewing of cup contents 30 (not shown) and also with marginal portion 134 of opaque material. Loop 14 extends through hole 136 provided in the lid, and extension feature 138 of opaque material extends

into transparent central portion 132 to hide from sight the securing arrangement, e.g., a knot, of loop 14.

Figs. 17-17E illustrate another preferred arrangement of a cup 141 with a dome-shaped lid 140. Lid 140 is of transparent (or opaque) material allowing visual access to the 5 contents of the cup. Also as illustrated, lid 140 is provided with a flat central portion 142 having a central opening 144 through which loop 14 extends in a manner similar to that of Figs. 1-7 for suspension of the cup and its contents. In one preferred application of the embodiment of Figs. 17-17E, the cup is used as a container for salads, the domed lid 140 providing capacity in excess of the cup for tossing of the salad to incorporate an applied salad 10 dressing.

Figs. 18-18B illustrate a preferred embodiment of a container of the invention having a loop 14' integrally formed with, and extending from the lid 150. Loop 14' is formed by a band 152 attached to lid 150 along a perforated circumferential seam 154 and by one end 156 of band 152 which is permanently attached to lid 150. The band extends from end 156, in overlapping fashion, circumferentially about the outer surface of the container body 151 to an elbow 158 formed in the band, the elbows acting to direct intermediate portion 160 of band 152, which exceeds the circumference of the attached container, upwardly above the container to form suspension loop 14'. The overlap of band 150 about container body 151 provides a tamper-evident seal for the container, i.e., the band must be at least partially 15 separated from the lid, as described below, to access the container.

As illustrated in Fig. 18A, the container can be suspended from loop 14' for display, storage or convenient transport by, e.g. engaged finger As illustrated in Figs 18, 18A and 18B, the band can be separated along perforated seam 154 to allow for removal of lid 150 from container body 151.

Fig. 19 illustrates a preferred embodiment of a container having a lid 170 with an 25 integrally formed tab 172. Tab 172 extends from attached proximal end 174 to a distal end 176. A hole 178 is provided in distal end 176 to act as a loop for suspension of the container formed by the combination of lid 170 and cup 171 as illustrated.

In its as-formed, relaxed state, tab 172 extends downwardly, i.e., in the direction of 30 arrow D of Fig.19, from lid 170 parallel to lid flange 173. This arrangement allows lid 170 to be stacked with like lids during lid manufacturing, storing, and any necessary shipping.

Furthermore, containers having cups 171 and lids 170 filled with product, can be stacked for storage, shipping and handling without substantial interference from tab 172 which lies, in its relaxed condition, parallel to the surface of the cup.

Fig. 20 illustrates a preferred embodiment of a container having a lid 180 with a tab 182 formed integrally with lid top surface 183. Tab 182 extends from attached proximal end 184 to a distal end 186. In its as-formed, relaxed state, tab 182 lies generally flat relative to planar top surface 183, thus allowing lid stacking and container stacking advantages as described above with reference to Fig. 19. Lid 180 is provided with an internal film laminate 185 attached along the undersurface of lid 180 183 to provide a seal beneath tab 182 between the contents of the container and the external environment. Distal end 186 of tab 182 has a hole 188 provided to act as a loop for suspension of the container formed by the combination of lid 180 and cup 181 as illustrated.

In an alternative embodiment of the tab arrangement of Fig. 20, Figs. 21 and 21A illustrate a locking arrangement for selectively securing lid 180' to cup 181'. The arrangement is more fully explained in U.S. Patent 6,056,144, issued May 2, 2000, the entire contents of which are hereby incorporated by reference. Briefly, lid 180' is equipped with locking tabs 190 (only one shown) extending radially inward from lid flange 191. Cup 181' has recesses 192 (only one shown) formed along the bead 193 of its lid for allowing locking tabs 190 to pass below bead 193 when lid 180', aligned with cup 181' as shown in Fig. 21, is pressed downwardly onto cup 181'.

Once locking tabs 190 are below bead 193, lid 180' is rotated relative to cup 181' so that locking tabs 190 are no longer aligned with recesses 192. Tabs 190 then provide locking engagement with bead 193 to prevent removal of the lid from the cup. In this configuration, illustrated in Fig 21A, the container, even with relatively heavy contents, can be suspended by loop tab 182 without disengaging the lid from the cup.

Fig. 22 illustrates an embodiment similar to that of Fig. 20, having a two- piece lid 200 including an outer lid ring 202 formed of a relatively rigid thermoplastic resin and a central panel 203 of another, possibly transparent, material, e.g., paper, film, or foil. Central panel 203, if not entirely transparent, can have a transparent window formed therein, and can be provided with decorative printing or labeling describing the contents of the package.

A loop-forming tab 204 is formed integrally with and of the same material as rigid outer ring 202 of lid 202 for suspending the container as illustrated in Fig. 22A. The relatively strong yet flexible tab and ring, in combination, provide excellent weight-bearing characteristics for suspending a container of relatively heavy contents without disengaging 5 the lid from the container and without tearing or distorting the tab. This arrangement, with the tab in its relaxed, flattened position, also provides the lid and packaged product stacking advantages without tab interference similar to that described above with reference to Figs. 19 and 20. In one particularly advantageous application, the container is provided as packaging for, e.g., ice cream, the hanging containers providing efficient and organized use of freezer display space.

In another preferred embodiment, illustrated in Figs. 23-23B, the lid 210 and carton 211 are of square or rectangular profile, while having other features similar to those of Figs. 22 and 22A. This particular embodiment provides for especially efficient use of hanging space, where, as illustrated in Fig. 23B, little open air space remains between adjacent packages.

In a preferred embodiment illustrated in Figs. 24 and 24A, lid 220 is formed having raised top surface 222 forming a central aperture 224. Attached to top surface 222 on opposite edges of aperture 224 is a flexible plastic strip 226 of greater length than the inner diameter of aperture 224. Plastic strip 226 can be depressed into cavity 224, as illustrated by dashed lines in fig. 24, to provide a flat upper profile of the lid, thus allowing stacking of packages incorporating the lid without interference from strip 226. Alternatively, strip 226 can be flexed upwardly in a convex manner to provide a loop for suspending the lid and attached container as illustrated in Fig. 24A.

Figs. 25-25B, illustrate an advantageous embodiment having a lid 230 and loop assembly 240 formed of two separate but interengageable pieces. Loop assembly 240 has a loop portion 242 attached to a wedge-like base portion 244. Assembly 240, preferentially, is molded as one piece, e.g., from a thermoplastic material. Corresponding lid 230 is provided with a slot formation 232 on its upper surface ND for receiving the wedge-like base of the loop assembly. As illustrated in Fig. 25, wedge-like base 244 is slid in the direction of arrow A into slot formation 232 so that rails 235, 236 of slot formation 232 lock wedge-like base 244 from vertical motion or motion in the direction of arrow A. Lid 230 is also provided with

a drinking hole 238 which is covered by wedge-like base 244 when it is engaged with slot formation 232. In this engaged position, illustrated in Figs 25A and 25B, a container having lid 230 can be securely suspended by loop portion 242 of assembly 240 as the weight of the container and its contents applies an engagement maintaining force between wedge-like base 244 and slot formation 232.

5 In one application of this embodiment, multiple loop assemblies 240 remain affixed to a hanging support member 241 while containers incorporating the lid 230 are removed from the hanging assemblies 240 for consumption or otherwise. Refilled or new containers equipped with additional lids 230 are then hung from the affixed assemblies 240 for further display or storage.

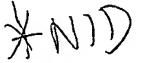
10 Figs. 26-28 illustrate a preferred container embodiment in which lid 250 has an integrally formed eyelet 251 for receiving a loop 252 for suspending the container. Loop 252 can be formed by e.g., a string or rope that is passed through eyelet 251 and tied. Alternatively, as illustrated in Fig. 27, loop 252' can be releasably secured by a connector 254 and can also carry a tag 256 for displaying, e.g., price or container content information. In either embodiment, lid 250 has upwardly extending walls 258 that rise to a level at least even with the top of eyelet 251. The top surface 259 of upwardly extending walls 258 provides a flat plane for stackability of multiple lids 250 or containers incorporating lids 250.

15 20 Figs. 28, 28A, 29 and 29A, illustrate a preferred container embodiment in which the loop 262 extends directly from the bead portion 264 of the major opening or mouth container product 266. As illustrated in Fig. 28A, to form loop 262, a cord 270 is attached to the container by rolling cord 270 within the portion of material of the container that is rolled to form the bead 264. At one location 272 of bead 264, excess cord length is provided relative to the circumference of the container to form loop 262. As illustrated in Figs 28-29A, various lids are then provided to seal the container after it is filled with the desired contents.

25 30 Figs. 30-31 illustrate a loop 280 formed as part of a zip-strap 282 (Fig.20),which is wrapped about a container to secure the lid 281 to a container (Fig. 30A) or to secure a jacket 284 about container 283 while simultaneously securing lid 281 to container 283 (Fig. 31). In either case, loop 280,which joined to end 285 of zip-strap 282, extends upward (or downward) to provide for suspension of cup 283 therefrom. (Fig.30A) providing an exposed loop for suspending the container.

In another preferred embodiment, illustrated in Figs. 32 and 32A, a lid 290 is formed with an integrally attached hoop 292 for encircling and supporting the cup. Hoop 292 is attached to lid 290 by an integrally formed strap 294. Hoop 292 is of greater inner diameter than the outer diameter of the lower portion of the cup, but is of lesser inner diameter than the outer diameter of the upper portion of the cup. Thus hoop 292 can be passed over the bottom of the cup and progressively slid toward the top of the cup until the strap is snug against the outer surface of the cup. Meanwhile, strap 294 is passed through an integrally formed lid eyelet 296 to form a loop 298 for suspending the container. Thus lid 290, hoop 292 and loop 298 are integrally formed of the same material and can act together to supportably suspend a cup engaged by hoop 292. 

In a preferred embodiment illustrated in Fig. 33, a jacket 300 is provided for supportably suspending a cup 301 with a lid 303. Jacket 300 forms an internal pocket for accepting the cup and has a first arm 302 and a second arm 304, both of which can be extended up and over cup lid 303. With second arm 304 extended up above lid 303, extended, first arm 302 is pulled through a slot 306 formed in second arm 304 so that further tension on first arm 302 pulls second arm 304 tight against the surface of the lid, thus securing the cup and lid within the jacket. First arm 302 is provided with a loop hole 308 at its distal end 309 to allow the jacket and its enclosed cup to be supportably suspended.

In another preferred embodiment, illustrated in Fig. 34, a sleeve 310 has an open top of a diameter greater than the smallest diameter of a tapered cup 315, which is received within sleeve 310. Sleeve 310 also has an open bottom of lesser diameter than the largest diameter of the outer surface of a cup. The sleeve has a loop 312 for securely suspending received cup 315 with, loop 312 being formed by a drawstring 313 passing through a tubular band 314 formed at the sleeve's upper edge. One portion 316 of the upper edge of the sleeve and tubular band are cut away to leave extending loop 312 of drawstring 313 for supportably suspending the cup. Suspension of the cup by the drawstring of the sleeve allows the weight of the cup and its contents to tighten the drawstring, thereby pulling the upper edge of the sleeve more securely about the cup. As illustrated, the upper edge of the sleeve extends over an outer surface of the cup lid 317 to also aid in securing the lid to the cup. 

Alternatively, as illustrated in Fig. 35, a sleeve 320, which has diameter dimensions relative to its received cup 321 similar to those of sleeve 310 relative to cup 315 of Fig. 34, is

formed of a mesh material. Received cup 321 is suspendable within the mesh sleeve by loops 322 of a portion of the mesh sleeve 320 that extends above received cup 321. *(Strikethrough)*

Fig. 36 illustrates a preferred embodiment of a sleeve 330 for securing a lid to a cup. Sleeve 330 is formed as a partial hollow cone having an upper opening 332 of diameter sufficient for receiving the bottom portion of a received cup 333 and tapering to a lower opening 334 of diameter less than the diameter of the outer surface of an upper portion of a received cup 333. The sleeve also has hook portions 336 extending upward from its outer surface for securing a cup lid. In use, the bottom of a cup is placed within sleeve 330 with its greater diameter opening facing the top of the cup. Sleeve 330 is slid upward along the outer surface of the cup until its upward motion is restricted by the interference of its limiting lower opening diameter against the outer surface of the cup. This interference acts against the lower sleeve opening to rotate the tapered, conical wall of the sleeve inwardly toward the cup surface, thereby forcing the upwardly extending hooks 336 to move toward the center axis of the sleeve. The relationship of the sleeve, hook, cup and lid geometry is arranged so that the inward movement of the hooks causes a lower surface of hooks 336 to secure the lid to the cup.

In the embodiment of Fig. 37, one of the hooks has a hole 339 for receiving a loop 340 for suspending a cup within the sleeve. In this configuration, the weight of a suspended cup and its contents acts to further constrict the sleeve and hooks about the cup to further secure the lid and the cup within the sleeve. Similarly, the sleeve of Fig. 38 has an integral loop 342 formed integrally with and extending from one of the hooks to function in like manner to the sleeve and loop of Fig. 37.

Figs. 39-39F and 40 illustrate preferred embodiments of novel containers 400, 400', respectively, each having both ornamental and utilitarian features. Containers 400, 400' each have a decorative and/or supporting band 406, 406', respectively, which has a hoop portion 408 dimensioned to be capable of receiving a cup 410 in a manner similar to sleeve 330 of Figs. 36-38. Each of supporting bands 406, 406' also has extending tabs 412 that, preferably, rise above the major opening or mouth of cup 410 when cup 410 is fully received in hoop portion 408. Container 400 (Fig. 39) is also equipped with a loop 414 extending from lid 416 of cup 410, in a manner similar to the cup and lid arrangement of Figs. 1-9. Container 400 can thus be supportably suspended from loop 414 or from one or both of tabs 412, e.g., by *NID change in fig 39*

grasping or clinching the tab(s). Supporting band 406' of container 400' (Fig. 40), while lacking loop 414, has loop apertures 414' provided in each of tabs 412 so that container 400' can be supported by engaging either or both of loop apertures 414' or by otherwise grasping or clinching one or both of tabs 412.

5 Figs. 39-40 illustrate preferred embodiment of a novel container having both ornamental and utilitarian features.

Figs. 41-42 and Figs. 43-44 illustrate unique and ornamental counter displays, having in common a base 80 or 80', a central upright support rod 82 or 82' joined to base 80 or 80' *ND* and extending rearwardly at an angle of about 15 degrees to the vertical, a pair of horizontal support rods 84 or 84' joined to and extending in cantilever fashion from the support rod 82 or 82' at an elevated position above base 80 and 80', the rods 84 or 84' forming an acute horizontal angle with each other of about 20 degrees, decorative and protective knobs heads 86 disposed on the ends of the support rods, and an upper head extension 88 protruding from the upper end of upright rod 82 or 82' and ending in an oval name plate 90, on which is intended to be inscribed the brand and identity of the goods being displayed. Supported on each arm, available for purchase, are a number of containers according to the invention, each suspended by its own loop on one of the support rods 84 or 84', in a space-efficient arrangement.

10 While the display of Figs. 43-44 has a single tier of the support arms 84, the display of Fig. 41-42, has two central upright support rods 82 and 82" joined at a common plane to base 80' and diverging from each other, these support rods lying in a common fore and aft plane, the rearward rod 82" being at the greater angle to the vertical and being shorter than the forward rod, ending in a "U" shaped horizontal rod section from which its two horizontal support rods extend, the forward central rod 82 rising higher and having the head extension, 15 and a pair of diverging horizontal supporting rods. The right and left upper and lower pairs of rods are aligned in respective vertical planes, and containers according to the invention are supported on each of the four arms, the spacing between the upper and lower rods being sufficient to accommodate suspended containers without interference. Where height 20 available allows, the display of Figs. 41-42 can be the most appropriate in being capable of displaying more containers within the same footprint as that of Figs. 43-44.